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REMARKS

The Applicant thanks the Examiner for careful consideration of the application.

Claims 1, 3 – 4, 6 – 7, 9, 11, and 13 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by Johnson, et al. (US5,237,627; "Johnson"). Claims 1, 6, and 11 were rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by Tanaka, et al. (US5,999,922; "Tanaka"). Claims 2, 5, 8, 10, 12 and 14 were rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Huang (US6,496,600; "Huang").

Claims 1 – 14 remain in the application. No amendments have been made to the claims. The rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) are respectfully traversed.

REJECTIONS UNDER 35 U.S.C. §102(b)

The rejections under 35 U.S.C. §102(b) are traversed. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). (MPEP §2131)

The Examiner states that claims 1, 3 – 4, 6 – 7, 9, 11, and 13 are anticipated by Johnson, and points specifically to the following passages in Johnson:

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"Optical character recognition, or OCR, is a process that transforms an image of a page of textual information into a text file on a computer. The text file can then be edited using standard word processors on the computer system. The process first involves "training" the OCR machine to segment characters within a page image, extract character features and build a set of templates for each class of characters. For example, a class for the character "a" might include a template for each font the OCR machine is capable of recognizing. After the templates have been created, a page of unknown textual information is scanned, the characters are segmented, features from each of the characters are extracted and then these features are compared to the templates created earlier in order to classify the characters." (Johnson, col. 4, lines 6 – 21).

and

"FIG. 7 shows a flow diagram of the overall process of the present invention. Referring now to FIG. 7, a page image 702 is received from the scanner electronics 606 (FIG. 6). This page image is processed by an extract character process 704 which identifies each individual character on a page and places that character into a character image data stream 706. The extraction of characters is well known in the art. The character images 706 are sent to an extract features process 708 of the present invention. The extract features process 708 will be described in detail with respect to FIG. 8. The extract features process 708 creates a list of character features 710 which is sent to a classify character process 712. The classify character process 712 will be described below with respect to FIGS. 9 through 12. The output of the classified character process 712 is a coded characters data stream 714 which contains one or more choices for each character being analyzed. This output is sent to a word processor 716 where it is edited and displayed by the user of the system. The output may be sent through a host system bus to a word processor within a host system." (Johnson, col. 7, lines 47 – 68).

The Applicant submits, however, that elements of the present invention are not present in Johnson. Johnson specifically relates to extracting "proto-features" by traversing the dark regions of a character image, and comparing each proto-feature to templates to arrive at an ordered list of potential matches. Johnson is thus strictly a method of optical character recognition (OCR), and is silent on what happens to the extracted text, other than that the text is stored in a

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common computer-processable format, such as ASCII, and can then be edited using standard word processing software. All the pending claims of the present invention, in contrast, include the limitations of determining style characteristics for each character, and saving the style information with the text.

Indeed, one problem Johnson seeks to address is that prior art OCR programs generally needed to be trained on each type font, whereas Johnson seeks to be "omni font" (that is, font independent). Johnson essentially attempts to define an alternative set of features for OCR that arguably yield better results than prior art programs, and that are at "a high enough level that they are insensitive to font variations, such as size, shape, skew, etc." (Johnson, column 3, lines 1 – 4). Thus, far from trying to identify the font and style, Johnson seeks to make the font and style *irrelevant* to the OCR results.

The Examiner appears to be relying on the statement in Johnson that "[a]fter the templates have been created, a page of unknown textual information is scanned, the characters are segmented, features from each of the characters are extracted and then these features are compared to the templates created earlier in order to classify the characters" (Johnson, column 4 lines 15 – 21). The Applicant argues that Johnson uses the phrase "classify the characters" to simply mean "determine which letter, number, or symbol the character most likely is," rather than to mean "identify the style or font of the character." Indeed, the "templates" Johnson creates are intended to provide a method of classification that is *more* insensitive to the style or font than previous OCR implementations.

Tanaka likewise does not anticipate the present invention. Tanaka discloses a "neural net" that can be "trained" for recognizing patterns. The passage relied upon by the Examiner (column 22, lines 41-63), discusses training the system to recognize handwritten characters:

"The present invention is also applicable to an optical character reader (OCR) as shown in FIG. 39. The OCR has been used as a

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character input device in recent years in spite of its rather low recognition rate. An optical character reader 80 comprises a scanner 81, and a character recognition system 82. The character recognition system comprises a font memory 83 and a character recognition unit 84. The font memory 83 contains a predetermined font, while the character recognition unit 84 compares a picked-up data of a character with a character of the stored font. When a character to be read is quite similar in shape to that stored in the memory, the OCR enables recognition of the character. A hand-written character is, however, rarely read by the OCR. Such an unrecognizable character is used as a teacher pattern to generate a complete set of characters (font) through the neuroprocessing service according to the present invention. The unrecognizable pattern is sent to the neural network NN in an adequate manner. Once the unrecognizable character is made as a font, it becomes possible to store the font in the font memory of the OCR. As a result of storing the font of the hand-written characters, the OCR can recognize any other hand-written characters written by the same person."

Tanaka, like Johnson, discusses only the recognition of characters, and is silent on what is subsequently done with the recognized text. Like Johnson, the primary purpose of Tanaka's invention is to correctly identify a symbol despite differences in font, style, or handwriting. Tanaka therefore does not anticipate the present invention in that it does not teach, imply or suggest determining the style characteristics for each character (it only seeks to identify the characters despite stylistic differences); nor does it anticipate saving the scanned data as processed data containing style characteristics of the scanned data.

Thus, neither Johnson nor Tanaka teach saving "the scanned data as processed data containing style characteristics of the scanned data", and therefore neither reference anticipates the present invention. The rejections under U.S.C. §102(b) should therefore be withdrawn.

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REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 2, 5, 8, 10, 12 and 14 were rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of Huang (6,496,600). The rejections under 35 U.S.C. §103(a) are respectfully traversed. To establish a prima facie case of obviousness, the prior art must suggest the desirability of the claimed invention; a reasonable expectation of success is required; and all claim limitations must be taught or suggested by the prior art (MPEP §2143). These requirements are not met here.

The Examiner states that Tanaka discloses all of the claimed subject matter except that Tanaka does not explicitly call for preparing an information sheet containing the style characteristics of the scanned data and printing the information sheet. As discussed above, the Applicant respectfully disagrees with the Examiner's analysis, in that the Applicant's reading of Tanaka is that the disclosed invention simply implements an OCR function, and is silent on what is done with the data after character recognition.

The cited prior art thus does not teach nor suggest all the claim limitations of the present invention. The Applicant therefore respectfully requests that the rejections under 35 U.S.C. §103(a) be withdrawn.


Favorable action by the Examiner is solicited.

Respectfully submitted,

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